

# Work Order ID 82078

**\*82078\***

Page 1

March-22-12 1:31:25 PM

Item ID: D2600-3-120

Accept

**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Extrusion Round 3" 350

Start Date: 3/22/12 Start Qty: 80.00

**\*80\***

Cust Item ID:


Required Date: 3/28/12 Req'd Qty: 80.00

**\*80\***

Customer:

Reference:

Approvals:

Process Plan: 

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2600

E

100

0.00

**\*100\***

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 16534

a) Extrude as per Dwg D2600 (120" long)

b) Material: 6061-T6

c) Material certification is required.

*12-03-22*

110

Receive & Inspect for Damage & Mat'l Certs

0.00

**\*110\***

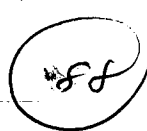
Packaging

Memo

0.00

Packaging

Ensure material certification is attached

*6/4/3/27* 

# Work Order ID 82078

**\*82078\***

Page 2

March-22-12 1:31:25 PM

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Run Start

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Approvals: Process Plan:

Date:

Tooling:

Date:

Stop

**\*NR2\***

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

QC6- Inspect dimensions to drawing

0.00

**\*120\***

QC

Memo

0.00

Quality Control

Check Pull test per Dwg D2600 for compliance page attached Check hardness with Webster tester

*5/20/03/22*

*12-4-3*

130

Identify as per dwg & Stock Location: *LG006* 0.00

**\*130\***

Packaging

*Pull at 22 for ac inspection*

Memo

0.00

Packaging

*5/20/03/22*

*MO*

*12-4-3*

140

QC21- Final Inspection - Work Order Release 0.00

**\*140\***

QC

Memo

0.00

Quality Control

*MLJ 12/04/03*

*12-04-3*

# Picklist Print

March-22-12 1:31:25 PM

Page 1

Work Order ID: 82078

Parent Item: D2600-3-120

Start Date: 3/22/12

Required Date: 3/28/12

Parent Item Name: Extrusion Round 3" 350

Start Qty: 80.00

Required Qty: 80.00

Comments: IPP D: 02.09.10 Added DSK 066 KJ/RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-3-120P Extrusion Round 3" 350		Purchased	No			110	Each	0.0000	1	80		6/23/27	85

# SPECIFICATION CONTROL DRAWING

## D2600-X-XXX EXTRUSION

### NOTES:

1) MATERIAL: 6061-T6 ALUMINUM PER QQ-A-200/8 OR AMS-QQ-A-200/8 OR ASTM B221

MINIMUM TENSILE YIELD STRENGTH = 35 KSI  
MINIMUM ULTIMATE TENSILE STRENGTH = 40 KSI  
MINIMUM ELONGATION = 8%

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE ABOVE MINIMUM MECHANICAL PROPERTIES

- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N & B/N PER DART QSI 044 6.1 (FINE POINT PERMANENT INK MARKER)
- 7) WEIGHT: D2600-1 = 0.078 lb/in, D2600-3 = 0.130 lb/in, D2600-5 = 0.045 lb/in, D2600-7 = 0.091 lb/in
- 8) NO TOOLING MARKS
- 9) FOR D2600-1, PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH (EX. D2600-1-160 IS 160" LONG).  
D2600-1 EXTRUSION MANUFACTURED FROM:  
- CARADON INDALEX DIE # MH-18870  
- SIGNATURE ALUMINUM (BON-L) DIE # 897121
- 10) FOR D2600-3, PART NUMBER IS D2600-3-XXX WHERE XXX IS CUT LENGTH (EX. D2600-3-120 IS 120" LONG).  
D2600-3 EXTRUSION MANUFACTURED FROM:  
- CARADON INDALEX DIE # MH-18859  
- SIGNATURE ALUMINUM (BON-L) DIE # 897122
- 11) FOR D2600-5, PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH (EX. D2600-5-108 IS 108" LONG).  
D2600-5 EXTRUSION MANUFACTURED FROM:  
- CARADON INDALEX DIE # MS-18871
- 12) FOR D2600-7, PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH (EX. D2600-7-125 IS 125" LONG).  
D2600-7 EXTRUSION MANUFACTURED FROM:  
- CARADON INDALEX DIE # MS-18872

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 58078

*PLD-0320*

RELEASED  
2012-01-11

E	REFORMAT DWG; ALL DIMS & TOL. UPDATE TO MATCH MFG DIE DWGS; ADD ASTM B221 SPEC (D8-1)	CP	11.10.18
D	INCREASE MIN. UTS TO 40 KSI	DS	98.08.20
C	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	DS	98.04.16
B	CHANGE MATERIAL SPEC.	DS	97.09.09
A	NEW ISSUE	DS	97.01.21
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>4</i>	DART AEROSPACE LTD	
DRAWN	<i>90</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AIS</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>ES</i>	D2600	SHEET 1 OF 3
APPROVED	<i>TH</i>	TITLE	SCALE
DE APPR.	<i>TH</i>	EXTRUSION	NTS
DATE	11.10.18	COPYRIGHT © 1997 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

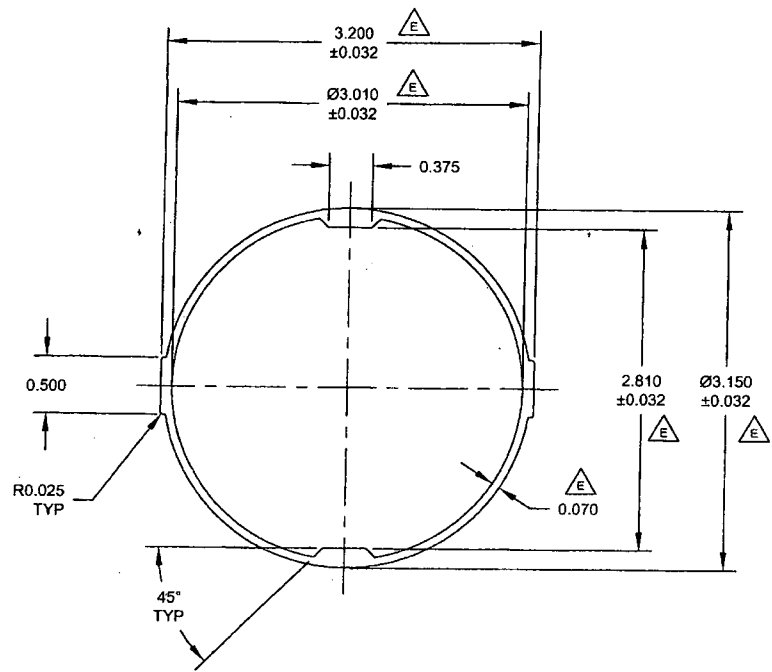
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

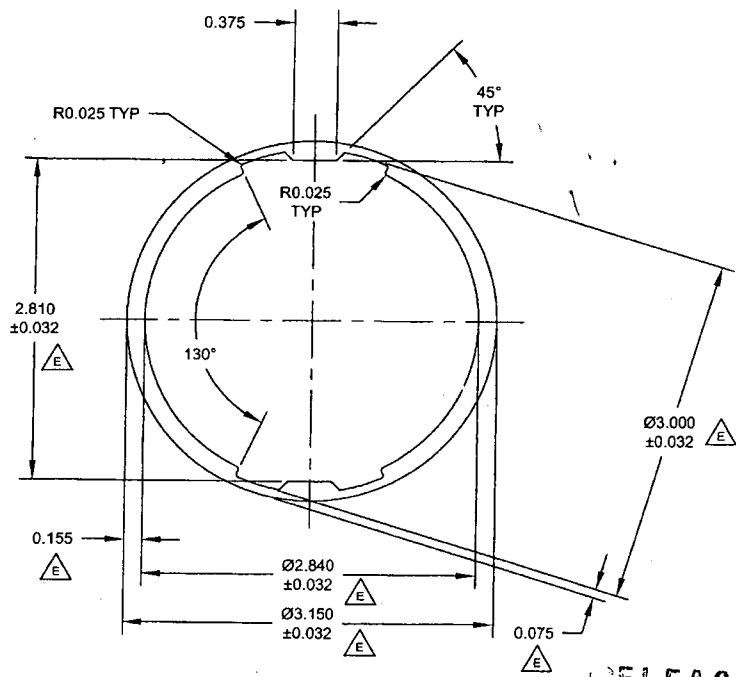
**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1

82028



D2600-1 EXTRUSION



D2600-3 EXTRUSION

RELEASED  
2012-01-10

DESIGN	4	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	9		
CHECKED	ASS	DRAWING NO.	REV. E
MFG. APPR.	BE	D2600	SHEET 2 OF 3
APPROVED	WAD	TITLE	SCALE
DE APPR.		EXTRUSION	NTS
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8 7 6 5 4 3 2 1

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



DESIGN	<i>4</i>	<b>DART AEROSPACE LTD</b>	
DRAWN	<i>Q</i>	<b>HAWKESBURY, ONTARIO, CANADA</b>	
CHECKED	<i>ASS</i>	DRAWING NO.	REV. E
MFG. APPR.	<i>EL</i>	D2600	SHEET 3 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	EXTRUSION	NTS
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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID PO16536

Purchase Order Date 3/22/2012

PO Print Date 3/22/2012

Page Number 1 of 1

Order From :

VC-BON001

SIGNATURE ALUMINUM  
1850 CLEMENTS ROAD  
PICKERING, ON L1W 3R8  
CA

Contact Name  
Vendor Phone 800 563 1079  
Vendor Fax 800 565 8339  
Vendor Account Nbr

Buyer Brigitte Golden  
Requisition Nbr  
Tax Resale Nbr 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

Ship To :

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	D2600-3-120P	Extrusion Round 3" 350	11:59:00 PM Yes	80.00 Each	Yours ppd	\$46.6380	\$3,731.04

Special Inst: RUSH PO, SHIP ASAP PLEASE  
ensure parts are round and within tolerance.  
As per DWG: D2600 Rev: E  
B82078  
6061-T6 as per (QQ-A-200/8)  
MINIMUM YIELD TENSILE  
STRENGTH=40 KSI  
MINIMUM ULTIMATE STRENGTH=  
40KSI  
MINIMUM ELONGATION = 8% 120"  
LONG  
SIGNATURE TOOL DIE # 897122

PO Total:

\$3,731.04

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required when applicable

Change Nbr: 1

Change Date: 3/22/2012

SIGNATURE  
aluminum  
CANADA INC.

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA  
1850 CLEMENTS ROAD  
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU  
03-25-12

MANIFEST NUMBER / N° DE BODEREAU  
005072

SALES ORDER NUMBER / N° DE COM  
105118

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
CANADA

PHONE: 613-632-5200

TERMS / FREIGHT

PP

REFER TO  
THESE NUMBERS ON  
ALL CORRESPONDANCE

REFEREZ-VOUS A CES  
NUMEROUS POUR TOUTE  
CORRESPONDANCE

CUSTOMER ID / ID DU CLIENT		ORDER DATE / DE LA COM		CUSTOMER PO NUMBER / CLIENT PO Nombre			JOB / FICHIER		FIELD SALES REP / REP. REGIONAL DES VENTES		CUST SERVICE REP / REP. SERVICE CLIENTELE	
46024		03/22/12		16536-REPLACEMENT			CARRIER / TRANSPORTEUR JODEE		G.ATTENBOROU		DLB	
BILL OF LADING NUMBER / NO. DE CONNAISSEMENT				005072								
ITEM NO. / NUMÉRO	ORIGINAL ORDER QUANTITY / Quantité d'ordre ORIGINAL	UNIT / UNITÉ	PREVIOUS SHIPPED QUANTITY / PRÉCÉDENT Quantité livrée	MFG. PART NUMBER / MFG. PARTIE NUMÉRO	ALLOY & TEMPER / ALLIAGE & TEMPER	FINISH DESCRIPTION / DESCRIPTION DE FINITION	NBR OF PKGS / NBR DE PKGS	GROSS LBS / LIVRES BRUT	NET QUANTITY / QUANTITÉ NETTE	UNIT / UNITÉ	QUANTITY DUE / Quantité en raison	
				CUSTOMER PART NUMBER / NUMÉRO DE RÉFÉRENCE DU CLIENT	LENGTH / LONGUEUR	FABRICATION DESCRIPTION / DESCRIPTION DE FABRICATION						
					CUTTING TOLERANCE / Tolérance de coupe	SHIPPING TOLERANCE / EXPÉDITION TOLERANCE						
				DAA-897122-1		6061 T6		3	1,435	1,402	LB	
001				1,279 LB					651	636	KG	
				580 KG		D2600-3-120						
				80 PC		Cut(+): 0.1180 Cut(-): 0.0000 Min: 0 % Max: 0 %				88	PC	
						811508 / 135621	1	633	619		39 PC	
						811508 / 135622	1	633	619		39 PC	
						811508 / 135623	1	170	163		10 PC	

88

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.  
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

CUSTOMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

Page 1

DATE OF DELIVERY

DRIVER

3	1,435	1,402	LB
	651	636	KG
		88	PC
TOTALS			

# CERTIFICATE OF COMPLIANCE

## SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD  
PICKERING, ON L1W 3R8

Cert Date	Cert No.	Sales Order	Page
03/25/2012	5280894	105118	1
Cust PO	B/L No	Lot	Date
6536-REPLACEMEN	005072	811508	03/25/12

Sold To		Ship To	
46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
001	DAA-897122-1	120" Mill 6061 T6	D2600-3-120
Gross Weight	1,435 LBS		
Net Qty	1,402 LBS		
Specification		Die Desc	
AMS-QQ-A-200/8 & ASTM B221-08			

### Mechanical Tests:

Tensile	Yield			
MPA / KSI	MPA / KSI	% Elongation	Conductivity	HREW
326.9 / 47.4	296.6 / 43.0	13.4	0.0	94

*S 12/03/12*

### Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.67	0.33	0.28	0.07	0.97	0.07	0.07	0.02	

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

S. Mazzotta, Director of Quality Signature Aluminum Canada Inc